

CLAIMS

1. Injection syringe (1) with retractable needle (2), at least comprising:
- 5 - a liquid container (3) with an outlet opening (4);
- a needle (2) with needle mount (8) which is or can be secured in or on the outlet opening (4) of the liquid container (3);
- 10 - a blocking means (14) which is designed to block the needle mount (8) in the outlet opening (4), which blocking means (14) can only be unblocked by the needle mount (8) with needle (2) being retracted into the liquid container (3).
2. Injection syringe (1) according to claim 1, in which the
- 15 blocking means (14) is designed in the form of one or more resilient lugs on the needle mount (8), which can be received in corresponding recesses (18) in the liquid container (3).
3. Injection syringe according to claim 1 or 2, in which the
- 20 injection syringe (1) also comprises a piston (5) which can move inside the said liquid container (3) and has a piston head (6), to which a piston rod (6) is or can be secured;
- in which the needle mount (8) of the needle (2) and the piston head (6) comprise coupling means which are designed so that they
- 25 can be unmistakably coupled to one another in order that, after the piston head (6) has been moved completely into the liquid container (3) in order for liquid (9) which is present in the liquid container (3) to be discharged via the outlet opening (4), the needle (2) can be retracted into the liquid container
- 30 (3) after the piston head (6) has been coupled to the needle mount (8) of the needle (2) and the blocking means has been unblocked;
- wherein the blocking means (14) can only be unblocked by the piston (5) being moved away from the outlet opening (4) after
- 35 the needle mount (8) has been coupled to the piston head (6).
4. Injection syringe (1) according to claim 3, in which the coupling means of the piston head (6) are designed in the form of a recess (10) with an inwardly directed collar (11).

5. Injection syringe according to claim 3 or 4, in which the coupling means of the needle mount (8) of the needle (2) comprise at least two ribs (15) which are connected to one
5 another at a connection point (16) on the side which faces the piston head (6), and in which the coupling means of the needle mount (8) comprise a coupling element (17) which is directed towards the wall of the liquid container (3) for unmistakable coupling to the collar (11) of the piston head (6).

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6. Injection syringe according to claim 5, in which the ribs (15) of the needle mount (8), when the needle (2) is retracted into the liquid container (3) as a result of the piston head (6) being coupled to the needle mount (8), can be moved closer
15 together.

7. Injection syringe according to claim 5 or 6, in which at least one of the ribs (15) of the needle mount (8) has a curvature in the direction of the longitudinal axis of the
20 liquid container (3).

8. Injection syringe (1) according to one or more of the preceding claims 5-7, in which at least one of the ribs (15) of the needle mount (8) comprises the coupling element (17) which
25 is directed towards the wall of the liquid container (3).

9. Injection syringe according to claim 8, in which at least two of the ribs (15) of the needle mount (8) comprise a coupling element (17) which is directed towards the wall of the liquid
30 container (8), at least one of the coupling elements (17) being at a different distance from the connection point (16) compared to the at least one other coupling element (17).

10. Injection syringe (1) according to one or more of the preceding claims 5-9, in which the coupling means of the needle
35 mount (8) comprise three ribs (15) which are connected to one another at a connection point (16) on the side which faces the piston head (6).

11. Injection syringe (1) according to one or more of the preceding claims 5-10, in which the needle mount (8) is provided, on its side which faces the piston head (6), with a coupling member (20) for coupling to the piston head (6), which
5 coupling member (20) is preferably connected to the connection point (16).

12. Injection syringe (1) according to one or more of the preceding claims, in which the injection syringe (1) also
10 comprises a spring member (23) which can force the needle mount (8) with needle (2) into the liquid container (3) after the blocking means (14) has been unblocked.

13. Injection syringe (1) according to claim 12, in which the
15 spring member (23) forms part of the needle mount (8).

14. Injection syringe (1) according to claim 12 or 13, in which the spring member (23) can be blocked, preferably by a spring member-blocking means (24).
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15. Injection syringe (1) according to claim 14, in which the spring member-blocking means (24) can interact with a protective cap (25) for the purpose of blocking the spring member (23).

25 16. Injection syringe (1) according to claim 14 or 15, in which the spring member-blocking means (24) forms part of a securing element (22).

17. Injection syringe (1) according to one or more of the preceding claims 12-16, in which the spring member (23) is in a prestressed state.
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18. Needle mount (8) clearly intended for an injection syringe (1) according to one or more of the preceding claims 1-17.

35 19. Securing element (22) clearly intended for an injection syringe according to one of the preceding claims 1-17, which securing element (22) can secure the needle mount (8) to the liquid container (3) from the outside, the securing element (22)

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being provided with a spring member-blocking means (24).

20. Securing element (22) according to claim 19, in which the
securing element (22) is provided with a spring member (23)
5 which is in a prestressed state.

21. Set comprising a protective cap (25), needle mount (8)
according to claim 18 with needle (2), spring member (23) and a
securing element according to claim 19 or 20.